

the amendment filed on September 4, 2002, claim 15 was amended to recite a semiconductor device manufactured according to steps similar to those in claim 14, including the carbonizing step. Claim 15 was considered allowable. Thus, all of claims 14-16 should be allowable over the patents to Baliga (6,075,259) or Sato (6,049,098).

Since the Applicant's Supplemental Amendment was filed on November 18, 2002 but was not received by the Examiner prior to the mailing of the Office Action, the amendment to claim 14 was not considered. However, in a telephone conversation with the Applicant's representative, the Examiner identified a patent to Furumura et al (USP 5,103,285) as teaching carbonization. Although there is no formal rejection of the claims on the basis of Furumura et al, Applicant wishes to distinguish the reference in this Amendment, so that the claims can be found allowable and the application passed to issue.

Furumura et al (USP 5,103,285), teaches a silicon substrate with a metal layer and a silicon carbide layer therebetween. The purpose for the silicon carbide layer is to prevent diffusion of the metal into the silicon. With reference to Figs 1A-1C, the carbonized silicon layers 13A and 13B are obtained (column 4, lines 32-34) and, thereafter, a PSG layer 17 is deposited and heat treated to diffuse phosphorus (P) into the silicon carbide layers 13A and 13B (column 4, lines 43 to 47).

On the other hand, the method according to the present invention carries out the carbonizing step after the doping step. This sequence is expressly stated in amended Claim 14 filed November 18, 2002 and amended claim 15 filed on September 4, 2002. Clearly, the steps of the method according to the present invention are completely different from those of Furumura et al, thus precluding anticipation, and would not render the claimed invention obvious. There is no motivation for changing the sequence in Furumura et al, and in fact, such

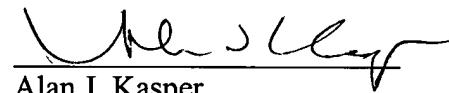
change would be contrary to the purpose of the process in the patent. Moreover, there is no motivation to add a changed carbonization process to Baliga (6,075,259) or Sato (6,049,098).

Accordingly, Applicant respectfully submits that the present invention has nothing to do with Furumura et al and, therefore, is patentable over it alone or in combination with other cited references.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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